

PRO Series

LCD Monitor

PRO MP223 (3PB9)

User Guide

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Revision

V1.0, 2023/03

Getting Started

This chapter provides you with the information on hardware setup procedures. While connecting devices, be careful in holding the devices and use a grounded wrist strap to avoid static electricity.

Package Contents

Monitor	PRO MP223	
Documentation	Quick Start Guide	
Accessories	Stand	
	Stand Base	
External Power Supply		
	Power Cord	
Cables	High Speed HDMI™ Cable (Optional)	

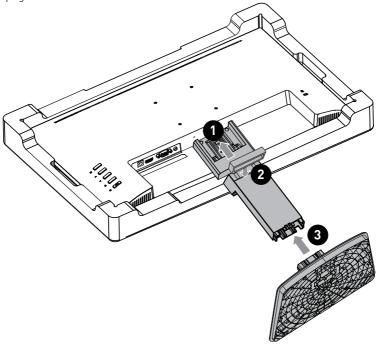


/ Important

- Contact your place of purchase or local distributor if any of the items is damaged or missing.
- Package contents may vary by country.
- The included power cord is exclusively for this monitor and should not be used with other products.

Installing the Monitor Stand

- 1. Leave the monitor in its protective foam packaging. Align and gently push the stand bracket towards the monitor groove until it locks in place.
- 2. Align and gently push the cable organizer towards the stand until it locks in place.
- 3. Align and gently push the base towards the stand until it locks in place.
- 4. Make sure the stand assembly is properly installed before setting the monitor upright.





/ Important

- Place the monitor on a soft, protected surface to avoid scratching the display panel.
- Do not use any sharp objects on the panel.
- This product comes with NO protective film to be removed by the user! Any mechanical damages to the product including removal of the polarizing film may affect the warranty!

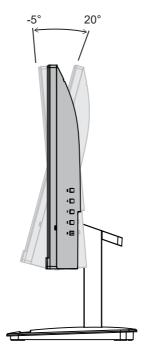


Adjusting the Monitor

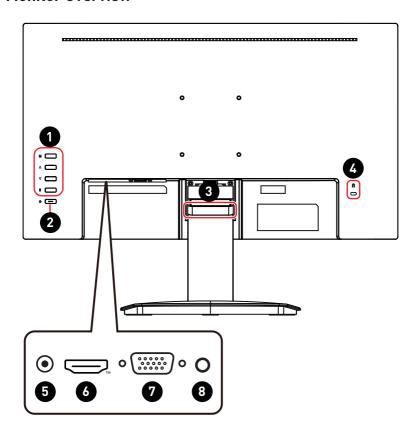
This monitor is designed to maximize your viewing comfort with its adjustment capabilities.



Avoid touching the display panel when adjusting the monitor.



Monitor Overview

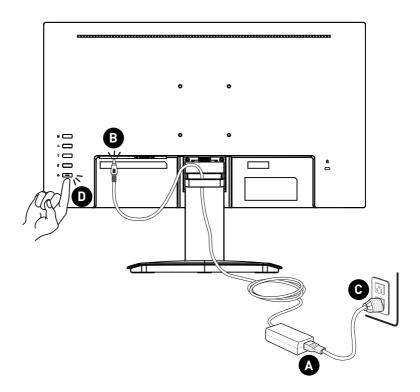


0	OSD Keys
2	Power Button
3	Cable Organizer
4	Kensington Lock
5	Power Jack

6	HDMI TM Connector HIGH-DEPORTION MULTIMEDIA INTERFACE
	Supports 1920x1080@100Hz as specified in HDMI™ 1.4b.
	D-Sub Port
	Supports 1920x1080@60Hz.
8	Headphone Jack

Connecting the Monitor to PC

- 1. Turn off your computer.
- 2. Connect the video cable from the monitor to your computer.
- **3.** Assemble the external power supply & power cord. (Figure A)
- **4.** Connect the external power supply to the monitor power jack. (Figure B)
- **5.** Plug the power cord into the electrical outlet. (Figure C)
- **6.** Turn on the monitor. (Figure D)
- 7. Power on the computer and the monitor will auto detect the signal source.



OSD Setup

This chapter provides you with essential information on OSD Setup.

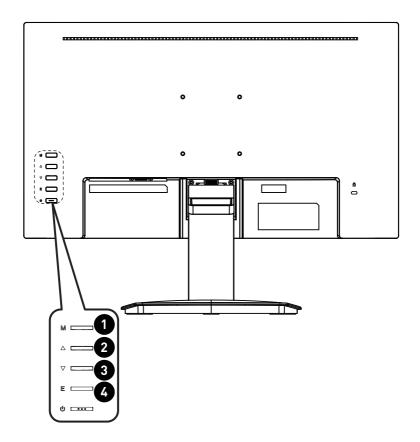


Important

All information is subject to change without prior notice.

OSD Keys

The monitor comes with a set of OSD Keys that help to control the On-Screen Display



OSD R	(eys	Hot Key (When OSD is OFF)	OSD Setup (When OSD is ON)
0	М	Activating the OSD Main Menu	Returning to the previous menu
			Exiting from the OSD Main Menu
2	A		Used as the Up/Right button to select function menus and items
		Used as the designated shortcut hotkey	Allowing upward adjustment in function values
3	•		Used as the Down/Left button to select function menus and items
			Allowing downward adjustment in function values
4	Е	Activating the auto adjustment function that	Used as the Enter button to enter function items
	automatically sets the horizontal/vertical position, clock and focus (for D-Sub signals only)		Confirming the selection

OSD Menus

Press the M key to launch the On-Screen Display (OSD) main menu and use the OSD keys to tune the desired function to suit your personal preferences.



Professional

1st Level Menu	2nd/3rd Level Menu	Description	
Mode	Eco	Use Up or Down Button to select a preview mode effects. Press the E Button to confirm and apply your mode type.	
	User		
	Anti-Blue		
	Movie		
	Office		
	Black-White		
Response Time	Normal	Setting to Fastest will reach the shortest response time and help improve blurred images when playivery fast games.	
	Fast		
	Fastest		
MPRT	OFF	Activating MPRT will affect:	
		Affected Function	Function Status
	ON	» Response Time » Brightness	Unable to select
		» HDCR	Set to OFF
		MPRT is availabl rate is over 85Hz	e when the refresh

1st Level Menu	2nd/3rd L	evel Menu	Description
Refresh Rate	Location	Left Top Right Top Left Bottom Right Bottom	Location is adjustable in OSD Menu. Press the E Button to confirm and apply your Refresh Rate Location. This monitor follows and works at the Operating System's preset Screen Refresh Rate.
Alarm Clock	Location	Left Top Right Top Left Bottom Right Bottom	After setting the time, press the E Button to activate the timer. Users have to manually restore their preset Alarm Clock after any AC power loss and reconnection.
	0FF 15:00 30:00 45:00 60:00	00:01 ~	
Screen Assistance	Eye-Q Check	OFF Amsler Grid Astigmatism Posture Currection None	 Select OFF to disable Eye-Q Check. Select Amsler Grid to check your central vision field. Select Astigmatism to check your blurred vision. Select Posture Correction to improve your posture when sitting. Through Al algorithm, this function enhances the visibility of in-game crosshair. Users can select the color and position of the crosshair.

1st Level Menu	2nd/3rd Level Menu	Description	
Screen Size	Auto	• Users can adjust Screen Size in an	
	4:3	mode, any resolution and any scre	ution and any screen
	16:9		
Adaptive-Sync	OFF	Adaptive-Sync prevents screen	
	ON	• Activating Adapti	ve-Sync will affect:
		Affected Function	Function Status
		» MPRT	Set to OFF

Image

1st Level Menu	2nd/3rd Level Menu	Description		
Brightness	0-100	Properly adjust Brightness according to the surrounding lighting.		
Contrast	0-100	Properly adjust 0 eyes.	Contrast to relax your	
Sharpness	0-5	Sharpness improves clarity and details of images.		
Image	OFF		nent enhances image	
Enhancement	Weak	edges to improve	e their acutance.	
	Medium			
	Strong			
	Strongest			
Low Blue Light	OFF	Low Blue Light protects your eye against blue light. When enabled, Blue Light adjusts the screen col temperature to a more yellow glo		
	ON			
			et to Anti-Blue, it is able Low Blue Light.	
HDCR	OFF	HDCR enhances image quality by		
	ON		ontrast of images.	
		Activating HDCR		
		Affected Function	Function Status	
		» Brightness	Unable to select	
		» MPRT	Set to OFF	

1st Level Menu	2nd/3rd Level Menu		Description
Color	Cool		• Use Up or Down Button to select and
Temperature	Normal		preview mode effects. • Press the E Button to confirm and
	Warm		apply your mode type.
	Customization	R (0-100)	
		G (0-100)	
		B (0-100)	
Clock (For D-Sub)	0-100		Adjusting the clock to reduce Vertical-Line noise
Phase (For D-Sub)	0-100		Adjusting the phase to reduce Horizontal-Line noise
H. Position (For D-Sub)	0-100		Adjusting the horizontal position of the image
V. Position (For D-Sub)	0-100		Adjusting the vertical position of the image

Input Source

1st Level Menu	2nd Level Menu	Description
HDMI™		Users can adjust Input Source in any mode.
D-Sub		
Auto Scan	OFF	Users can use the Navi Key to select Input
	ON	Source at below status: • While "Auto Scan" is set to "OFF" with the monitor at power saving mode;
		While "No Signal" message box is shown on the monitor.

Navi Key

1st Level Menu	2nd Level Menu	Description
Enter	OFF	All Navi Key items can be adjusted via
Up	Brightness	OSD Menus.
Down	Mode	
	Alarm Clock	
	Input Source	
	Refresh Rate	
	Info. On Screen	

Setting

1st Level Menu	2nd Level Menu	Description
Language	繁體中文	Users have to press the E Button to
	English	confirm and apply the Language setting.
	Français	Language is an independent setting. Users' own language setting will override
	Deutsch	the factory default. When users set Reset to Yes, Language will not be changed.
	Italiano	to res, Language with not be changed.
	Español	
	한국어	
	日本語	
	Русский	
	Português	
	简体中文	
	Bahasa Indonesia	
	Türkçe	
	(More languages coming soon)	
Transparency	0~5	Users can adjust Transparency in any mode.
OSD Time Out	5~30s	Users can adjust OSD Time Out in any mode.

1st Level Menu	2nd Level Menu	Description	
HDMI™ CEC	OFF	HDMI TM CEC (Consumer Electronics Control) Supports Sorry PlayStation®	
	ON	Control) supports Sony PlayStation®, Nintendo® Switch™, Xbox Series X S consoles and various audio-visual devices that are CEC-capable.	
		If HDMI™ CEC is set to ON: The monitor will automatically power on when the CEC device is turned on. The CEC device will enter power saving mode when the monitor is turned off.	
		 When Sony PlayStation®, Nintendo® Switch™, or Xbox Series X S console is connected, Mode will be automatically set to default mode and can be adjusted to users' preferred mode later. 	
Info. On Screen	OFF	The information of the monitor status will	
	ON	be shown on the right side of the screen.	
Reset	YES	Users can Reset and restore settings to	
	NO	original OSD Default in any mode.	

Specifications

Monitor		PR0 MP223	
Size		21.45 inch	
Curvature		Flat	
Panel Type		VA	
Resolution		1920 x 1080 (FHD)	
Aspect Ratio		16:9	
Brightness (ni	ts)	250 cd/m2 (TYP)	
Contrast Ratio		3000:1	
Refresh Rate		100Hz	
Response Time		• 1ms (MPRT)	
		• 4ms (GTG)	
I/O		HDMI™ Connector x1	
		• D-Sub Port x1	
		• Headphone Jack x 1	
View Angles		178°(H) , 178°(V)	
DCI-P3*/ sRGE	3	79% / 96%	
Surface Treatr	nent	Anti-glare	
Display Colors		16.7M	
Monitor Power Options		12V === 2.5A	
External Powe	r Supply	Model: ADS-40NP-12-1 12030E	
Power Input		100~240V, 50~60Hz, 1.5A	
Power Output		12V === 2.5A	
Adjustment (Tilt)		-5° ~ 20°	
Kensington Lock		Yes	
VESA Mounting		Plate Type: 75 x 75 mm	
Dimension (W x H x D)		494.7 x 385.5 x 182.1 mm	
Weight	Net	2.4 Kg	
	Gross	3.46 Kg	

Monitor		PRO MP223	
Environment	Operating	• Temperature: 0°C ~ 40°C	
		• Humidity: 20% ~ 90%, non-condensing	
		• Altitude: 0 ~ 5000m	
	Storage	• Temperature: -20°C ~ 60°C	
		• Humidity: 10% ~ 90%, non-condensing	

^{*} Based on CIE1976 test standards.

Preset Display Modes



All information is subject to change without prior notice.

Standard	Resolution		HDMI™	D-Sub
VGA	640x480	@60Hz	V	V
		@67Hz	V	V
		@72Hz	V	V
		@75Hz	V	V
Dos-Mode	720x480	@60Hz	V	V
	720x576	@50Hz	V	
SVGA	800x600	@56Hz	V	V
		@60Hz	V	V
		@72Hz	V	V
		@75Hz	V	V
XGA	1024x768	@60Hz	V	V
		@70Hz	V	V
		@75Hz	V	V
SXGA	1280x1024	@60Hz	V	V
		@75Hz	V	V
WXGA+	1440x900	@60Hz	V	V
WSXGA+	1680x1050	@60Hz	V	V
Full HD	1920x1080	@60Hz	V	V
		@85Hz	V	
		@100Hz	V	
Video Timing Resolution	480P		V	V
	576P		V	V
	720P		V	V
	1080P @60Hz		V	V

Troubleshooting

The power LED is off.

- Press the monitor power button again.
- Check if the monitor power cable is properly connected.

No image.

- Check if the computer graphics card is properly installed.
- Check if the computer and monitor are connected to electrical outlets and are turned on.
- Check if the monitor signal cable is properly connected.
- The computer may be in Standby mode. Press any key to activate the monitor.

The screen image is not properly sized or centered.

• Refer to Preset Display Modes to set the computer to a setting suitable for the monitor to display.

No Plug & Play.

- Check if the monitor power cable is properly connected.
- Check if the monitor signal cable is properly connected.
- Check if the computer and graphics card are Plug & Play compatible.

The icons, font or screen are fuzzy, blurry or have color problems.

- · Avoid using any video extension cables.
- · Adjust brightness and contrast.
- Adjust RGB color or tune color temperature.
- Check if the monitor signal cable is properly connected.
- Check for bent pins on the signal cable connector.

The monitor starts flickering or shows waves.

- Change the refresh rate to match the capabilities of your monitor.
- Update your graphics card drivers.
- Keep the monitor away from electrical devices that may cause electromagnetic interference (EMI).

Safety Instructions

- Read the safety instructions carefully and thoroughly.
- All cautions and warnings on the device or User Guide should be noted.
- Refer servicing to qualified personnel only.

Power

- Make sure that the power voltage is within its safety range and has been adjusted properly to the value of 100~240V before connecting the device to the power outlet.
- If the power cord comes with a 3-pin plug, do not disable the protective earth pin from the plug. The device must be connected to an earthed mains socket-outlet.
- Please confirm the power distribution system in the installation site shall provide the circuit breaker rated 120/240V, 20A (maximum).
- Always disconnect the power cord or switch the wall socket off if the device would be left unused for a certain time to achieve zero energy consumption.
- Place the power cord in a way that people are unlikely to step on it. Do not place anything on the power cord.
- If this device comes with an adapter, use only the MSI provided AC adapter approved for use with this device.

Battery

Please take special precautions if this device comes with a battery.

- Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer.
- Avoid disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, which can result in an explosion.
- Avoid leaving a battery in an extremely high temperature or extremely low air pressure environment that can result in an explosion or the leakage of flammable liquid or gas.
- Do not ingest battery. If the coin/button cell battery is swallowed, it can cause severe internal burns and can lead to death. Keep new and used batteries away from children.

European Union:



Batteries, battery packs, and accumulators should not be disposed of as unsorted household waste. Please use the public collection system to return, recycle, or treat them in compliance with the local regulations.

BSMI:



廢電池請回收

For better environmental protection, waste batteries should be collected separately for recycling or special disposal.

California. USA:



The button cell battery may contain perchlorate material and requires special handling when recycled or disposed of in California. For further information please visit: https://dtsc.ca.gov/perchlorate/

Environment

- To reduce the possibility of heat-related injuries or of overheating the device, do not place the device on a soft, unsteady surface or obstruct its air ventilators.
- Use this device only on a hard, flat and steady surface.
- To prevent the device from tipping over, secure the device to a desk, wall or fixed object with an anti-tip fastener that helps to properly support the device and keep it safe in place.
- To prevent fire or shock hazard, keep this device away from humidity and high temperature.
- Do not leave the device in an unconditioned environment with a storage temperature above 60°C or below -20°C, which may damage the device.
- The maximum operating temperature is around 40°C.
- When cleaning the device, be sure to remove the power plug. Use a piece of soft cloth rather than industrial chemical to clean the device. Never pour any liquid into the opening; that could damage the device or cause electric shock.
- Always keep strong magnetic or electrical objects away from the device.
- If any of the following situations arises, get the device checked by service personnel:
 - The power cord or plug is damaged.
 - Liquid has penetrated into the device.
 - The device has been exposed to moisture.
 - The device does not work well or you can not get it working according to the User Guide.
 - The device has dropped and damaged.
 - The device has obvious sign of breakage.

TÜV Rheinland Certification

TÜV Rheinland Low Blue Light Certification

Blue light has been shown to cause eye fatigue and discomfort. MSI now offers monitors with TÜV Rheinland Low Blue Light certification to ensure users' eye comfort and well-being. Please follow the instructions below to reduce the symptoms from extended exposure to the screen and blue light.



- Place the screen 20 28 inches (50 70 cm) away from your eyes and a little below eye level.
- Consciously blinking the eyes every now and then will help to reduce eye strain after extended screen time.
- Take breaks for 20 minutes every 2 hours.
- Look away from the screen and gaze at a distant object for at least 20 seconds during breaks.
- Make stretches to relieve body fatigue or pain during breaks.
- Turn on the optional Low Blue Light function.

TÜV Rheinland Flicker Free Certification

• TÜV Rheinland has tested this product to ascertain whether the display produces visible and invisible flicker for the human eye and therefore strains the eyes of users.



- TÜV Rheinland has defined a catalogue of tests, which sets out minimum standards at various frequency ranges. The test catalogue is based on internationally applicable standards or standards common within the industry and exceeds these requirements.
- The product has been tested in the laboratory according to these criteria.
- The keyword "Flicker Free" confirms that the device has no visible and invisible flicker defined in this standard within the range of 0 - 3000 Hz under various brightness settings.
- The display will not support Flicker Free when Anti Motion Blur/MPRT is enabled. (The availability of Anti Motion Blur/MPRT varies by products.)

Regulatory Notices

CE Conformity

This device complies with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility (2014/30/EU), Low-voltage Directive (2014/35/EU), ErP Directive (2009/125/EC) and RoHS directive (2011/65/EU). This product has been tested and found to comply with the harmonized standards for Information Technology Equipment published under Directives of Official Journal of the European Union.

FCC-B Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the measures listed below:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/television technician for help.

Notice 1

The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Notice 2

Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference, and
- 2. This device must accept any interference received, including interference that may cause undesired operation.

MSI Computer Corp.

901 Canada Court, City of Industry, CA 91748, USA [626] 913-0828 www.msi.com

WFFF Statement

Under the European Union ("EU") Directive on Waste Electrical and Electronic Equipment, Directive 2012/19/EU, products of "electrical and electronic equipment" cannot be discarded as municipal waste anymore and manufacturers of covered electronic equipment will be obligated to take back such products at the end of their useful life.



Chemical Substances Information

In compliance with chemical substances regulations, such as the EU REACH Regulation (Regulation EC No. 1907/2006 of the European Parliament and the Council), MSI provides the information of chemical substances in products at: https://csr.msi.com/global/index

RoHS Statement

Japan JIS C 0950 Material Declaration

A Japanese regulatory requirement, defined by specification JIS C 0950, mandates that manufacturers provide material declarations for certain categories of electronic products offered for sale after July 1, 2006.

https://csr.msi.com/global/Japan-JIS-C-0950-Material-Declarations

India RoHS

This product complies with the "India E-waste (Management and Handling) Rule 2016" and prohibits use of lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers in concentrations exceeding 0.1 weight % and 0.01 weight % for cadmium, except for the exemptions set in Schedule 2 of the Rule.

Turkey EEE Regulation

Conforms to the EEE Regulations of the Republic Of Turkey

Ukraine Restriction of Hazardous Substances

The equipment complies with requirements of the Technical Regulation, approved by the Resolution of Cabinet of Ministry of Ukraine as of 10 March 2017, № 139, in terms of restrictions for the use of certain dangerous substances in electrical and electronic equipment.

Vietnam RoHS

As from December 1, 2012, all products manufactured by MSI comply with Circular 30/2011/TT-BCT temporarily regulating the permitted limits for a number of hazardous substances in electronic and electric products.

Green Product Features

- Reduced energy consumption during use and stand-by
- Limited use of substances harmful to the environment and health
- Easily dismantled and recycled
- Reduced use of natural resources by encouraging recycling
- Extended product lifetime through easy upgrades
- Reduced solid waste production through take-back policy

Environmental Policy

- The product has been designed to enable proper reuse of parts and recycling and should not be thrown away at its end of life.
- Users should contact the local authorized point of collection for recycling and disposing of their end-of-life products.



- · Visit the MSI website and locate a nearby distributor for further recycling information.
- Users may also reach us at gpcontdev@msi.com for information regarding proper disposal, take-back, recycling, and disassembly of MSI products.

Warning!

Overuse of screens is likely to affect eyesight.

Recommendations:

- 1. Take a 10-minute break for every 30 minutes of screen time.
- 2. Children under 2 years of age should have no screen time. For children aged 2 years and over, screen time should be limited to less than one hour per day.

Copyright and Trademarks Notice

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Technical Support

If a problem arises with your product and no solution can be obtained from the user's manual, please contact your place of purchase or local distributor. Alternatively, please visit https://www.msi.com/support/ for further guidance.